

REMARKS/ARGUMENTS

In the Office Action mailed April 9, 2007, Claims 1, 8-11, 13-14, 19-22 and 24 were rejected under 35 U.S.C. 102(b) over U.S. Patent No. 6, 218,268 to *Xia*. Claim 5 was rejected under 35 U.S.C. 103(a) over *Xia*. Claims 2, 3, 6 and 7 were rejected under 35 U.S.C. 103(a) over *Xia* in view of U.S. Patent No. 6,013,584 to *M'Saad*. Claims 4, 12 and 23 were rejected under U.S.C. 103(a) over *Xia* in view of U.S. Patent Publication No. 2002/0050605 to *Jeng*. And lastly, Claims 15-18 and 25-28 were rejected under 35 U.S.C. 103(a) over *Xia* in view of U.S. Patent No. 6,500,771 to *Vassilev*.

Claims 1, 5, 8, and 19 have been amended to describe the varying of processing gas ratios as occurring between a beginning and end of the depositing of a conformal layer. Support for the amendment can be found, among other places, in the Specification, p. 9, paragraph [0038], which notes that the ratio of gases may be varied to regulate the rate of deposition of a conformal layer. No new matter is believed added by the Amendment, and Claims 1-28 are pending in the application. Reconsideration and withdrawal of the rejections is respectfully requested in view of the Amendment and the following remarks.

A. The Rejection under 102(b) Is Addressed.

Withdrawal of the rejection of Claims 1, 8-11, 13-14, 19-22 and 24 under 35 U.S.C. 102(b) over *Xia* is respectfully requested in view of the Amendment to independent Claims 1, 8 and 19. All three claims have been amended describe the varying of processing gas ratios as occurring between a beginning and end of the depositing of a conformal layer. Specifically, Claim 1 recites “depositing the conformal layer comprises varying between a beginning and end of the depositing of the conformal layer a ratio of the (silicon-containing processing gas plus phosphorous-containing processing gas):(oxidizing processing gas)”; Claim 8 recites “varying over time a ratio of the (silicon-containing gas):(oxidizing gas) flowed into the chamber to alter a rate of deposition of the silicon oxide on the substrate between a beginning and end of the deposition of a substantially conformal layer”; and Claim 19 recites “varying over time a ratio of the (silicon-containing gas):(oxidizing gas):(phosphorous-containing gas) flowed

into the chamber to alter a rate of deposition of the silicon oxide on the substrate between a beginning and end of the deposition of a substantially conformal layer.”

The Amendment clarifies that in all three claims the processing gas ratios are varied between the beginning and end of the deposition. This addresses the Office’s concern with Fig. 7A in *Xia* as describing a change in ozone/TEOS ratios at the end of the deposition of the conformal layer. Amended Claims 1, 8 and 19 clarify that the varying of the processing gas ratios also occur before the end of the deposition. This varying of the ratios after the beginning and before the end of the deposition (i.e., between the beginning and end) is not described in Fig. 7A of *Xia*. For at least this reason, *Xia* does not include all the elements of Claims 1, 8 and 19 and these claims (as well as the their dependent claims) are allowable over the reference. Accordingly, withdrawal of the rejection of Claims 1, 8-11, 13-14, 19-22 and 24 under 35 U.S.C. 102(b) over *Xia* is respectfully requested.

B. The Rejections under 103(a) Are Addressed.

Withdrawal of the rejections of Claim 5 under 35 U.S.C. 103(a) over *Xia*; Claims 2, 3, 6 and 7 under § 103(a) over *Xia* in view of *M’Saad*; Claims 4, 12 and 23 under § 103(a) over *Xia* in view of *Jeng*; and Claims 15-18 and 25-28 under § 103(a) over *Xia* in view of *Vassilev* is respectfully requested for the same reasons as above. Claim 5 has been amended to recite that “depositing the conformal layer comprises varying between a beginning and end of the depositing of the conformal layer a ratio of the (silicon-containing processing gas):(oxidizing processing gas).” As noted above, this element is neither described nor suggested by *Xia*. Furthermore, the additional references (*M’Saad*; *Jeng*; and *Vassilev*) do not provide this element that is missing from *Xia*. Thus, the claims are allowable over both *Xia* alone, and *Xia* in combination with the additional reference. Accordingly, withdrawal of the claim rejections under 35 U.S.C. 103(a) is respectfully requested.

Conclusion

In view of the foregoing, the Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

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